UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,572	12/03/2003	Ikuo Makita	1538.1043	5135

21171 7590 09/14/2007	**EXAMINER**
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

		Application No.	Applicant(s)
Office Action Summary		10/725,572	MAKITA ET AL.
		Examiner	Art Unit
		Jason K. Gee	2134

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *30 July 2007*.

2a) ☐ This action is **FINAL**.　　2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-54* is/are pending in the application.

　　4a) Of the above claim(s) *10-18,28-36 and 46-54* is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-9,19-27 and 37-45* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a) ☐ All　b) ☐ Some * c) ☐ None of:

　　　1. ☐ Certified copies of the priority documents have been received.

　　　2. ☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date *12/3/03 & 10/6/06*.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   This action is response to communication: response to election/restriction filed

on 07/30/2007 with acknowledgement of benefit date of 06/27/2001.

2.   Claims 1-9, 19-27, and 37-45 are currently pending in this application. Claims 1,

7, 19, 25, 37, and 43 are independent claims.

3.   The IDS received 12/03/2003 and 10/06/2006 have been accepted.

Claim Rejections - 35 USC § 112

4.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

5.   Claims 3-6, 9, 21-24, 27, 39-42, and 45 are rejected under 35 U.S.C. 112,

second paragraph, as being indefinite for failing to particularly point out and distinctly

claim the subject matter which applicant regards as the invention.

As per claims 3-5, 21-23, 39-41 claims 3, 21, and 39 recite "wherein a third digital

signature for at least said format reverse-conversion program is received in said

receiving step." However, the receiving step never recites that a format reverse-

conversion program is ever received in the receiving step. It is unclear why a digital

signature for an item must be sent if the item itself is not sent.

As per claims 5, 23, and 41, these claims recite receiving a request for sending a format reverse-conversion program from said first computer ... and sending the extracted format reverse-conversion program to said first computer. First of all, it is unclear what entity receives this request and sends the extracted program to the first computer. Further, it is unclear why this step is necessary. According to the independent claim, the claim recites that a first computer sends a message to the intermediary, and this intermediary converts the message, and forwards this message to a receiver, along with a reverse conversion program. It is unclear why the first computer, who sent the original message, would need a reverse conversion program for a message he generated. It is not claimed how this program is used in anyway.

As per claims 6, 24, and 42, these claims recite a third digital signature. It is unclear if there is a second digital signature involved, as only a first digital signature is claimed in the claims in which they are dependent on.

As per claims 9, 27, and 45, claims 9, 27, and 45 recite "wherein a second signature is generated for at least said second data....". It is unclear whether this second signature refers to the said second digital signature that is claimed in the claim in which it is dependent on.

As per claim 22, the claim recites "the program as set forth in claim 2." However, claim 2 is not directed toward a program. It is unclear which claim this claim is dependent on.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 1, 2, 7-9, 19, 20, 25-27, 37, 38, and 43-45 are rejected under 35

U.S.C. 103(a) as being unpatentable over Namba US patent No. 5,966,448 (hereinafter

Namba), in view of Micali US patent No. 5,553,145 (hereinafter Micali).

As per claim 1, Namba teaches an information processing method, comprising

steps of: receiving first data for at least said first data from a first computer (col. 11 lines

60-64); performing format conversion corresponding to a destination of said first data,

for said first data received in said receiving step to generate second data (col. 12 lines

10-45); and sending at least said second data generated in said step of performing

format conversion (col. 13 lines 29-34).

However, at the time of the invention, Namba does not explicitly teach sending a

format reverse-conversion program for performing reverse conversion of the format

conversion. However, this is taught by Micali throughout the reference, such as in col. 6

lines 63-66, and col. 12 lines 25-30, where the intermediary sends the receiver

information that enables the receiver to retrieve and reconstruct the message from the

sender. Further, Namba teaches forwarding the digital signature of the original sender

to the recipient, such as in col. 7 lines 4-10.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the references of Namba and Micali. Both deal with communications utilizing a trusted intermediary. It is already taught by Micali that "it is preferable that these signatures are also forwarded to Bob" (col. 7 lines 5-10) By forwarding the signatures of the original sender, the receiver will be assured that the messages truly come from the sender. Further, it is taught in Micali in col. 3 lines 50-55 that it would be beneficial where the recipient can prove the content of a message. Both the references are directed to secure messaging, and combining the references would create more security.

As per claim 2, the Namba combination teaches further comprising a step of generating a second digital signature for at least said second data generated in said step of performing format conversion, said format reverse-conversion program, and said first digital signature, wherein said second digital signature is sent to said second computer in said sending step. Namba already teaches an intermediary reformatting the information, and sending out the information to the receiver. Micali teaches sending an intermediary's digital signature with the information, to prove that the intermediary is indeed the trusted intermediary device (col. 6 line 65 to col. 7 line 5, and also col. 7 lines 10-15, and also col. 8 lines 20-26, wherein the 'post office's digital signature is sent in each transaction.)

As per claim 7, Namba teaches an information processing method, comprising steps of: receiving first data for at least said first data from a first computer (col. 11 lines

60-64); performing format conversion corresponding to a destination of said first data, for said first data received in said receiving step to generate second data (col. 12 lines 10-45); and sending at least said second data generated in said step of performing format conversion (col. 13 lines 29-34), and identification information for identifying a format reverse-conversion program for performing reverse conversion of the format conversion (Figure 12, col. 13 lines 15-55)

However, at the time of the invention, Namba does not explicitly teach sending a first digital signature of the original sender to the recipient. This is taught by Micali though, such as in col. 7 lines 4-10.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the references of Namba and Micali. Both deal with communications utilizing a trusted intermediary. It is already taught by Micali that "it is preferable that these signatures are also forwarded to Bob" (col. 7 lines 5-10) By forwarding the signatures of the original sender, the receiver will be assured that the messages truly come from the sender. Further, it is taught in Micali in col. 3 lines 50-55 that it would be beneficial where the recipient can prove the content of a message. Both the references are directed to secure messaging, and combining the references would create more security.

Claim 8 is rejected using the same basis of arguments used to reject claim 2 above.

Claim 9, as best understood by the Examiner, is rejected using the same basis of arguments used to reject claim 8 above. Generating generating digital signatures by the intermediary is taught throughout Micali, as rejected above.

Independent claim 19 is rejected using the same basis of arguments used to reject claim 1 above.

Claim 20 is rejected using the same basis of arguments used to reject claim 2 above.

Claims 25-27 are rejected using the same basis of arguments used to reject claims 7-9 above.

Claim 37 is rejected using the same basis of arguments used to reject claim 1 above.

Claim 38 is rejected using the same basis of arguments used to reject claim 2 above.

Claims 43-45 are rejected using the same basis of arguments used to reject claims 25-27 above.

8.   Claims 3-6, 21-24, and 39-42 are rejected under 35 U.S.C. 103(a) as being obvious over Namba and Micali as applied above, and further in view of Menezes' *Handbook of Applied Cryptography* (1997) (hereinafter Menzes).

As per claim 3, as best understood by the Examiner, the Namba combination does not explicitly teach a third digital signature for at least said format reverse-

conversion program in said receiving step. Micali already teaches the use of several digital signatures, which authenticate and prove to receivers that the senders/intermediaries are truly who they say they are. However, Micali does not explicitly teach sending digital signatures for each of the items sent (such as a digital signature for the reverse-conversion program, as claimed). However, this would have been obvious. Menezes teaches that digital signatures are used to bind identity to pieces of information. It would be obvious to bind every set of information with a signature, to increase security. This can be seen throughout Menezes, such as in pages 22 and 23. All the elements of a message may be signed, so that a receiver would be assured that each and every element is authentic. Again, this would provide assurance that each element is authenticated, and would increase security of the system.

As per claim 4, the claims recite generating a fourth digital signature for the package sent to the second computer (second data, format reverse-conversion program, third digital signature, first digital signature). As rejected in claim 3, Micali already teaches generating a digital signature at the intermediary for the package sent to the receiver. The other digital signatures (signatures for the items in each package), would have been obvious to perform to create more security.

As per claim 5, as best understood by the Examiner, Namba teaches receiving a request for sending a format reverse conversion program from said first computer, said request including designation of a destination, and extracting a format reverse-conversion program corresponding to said destination from a format reverse-conversion

program storage, and sending the extracted format reverse-conversion program to said

first computer (col. 11 line 60 to col. 12 line 50; col. 13 lines 30 to 63). Further, as best

understood by the Examiner, Micali teaches this in col. 7 lines 17 to col. 8 line 45.

As per claim 6, Namba teaches wherein said format reverse-conversion program

and a third digital signature for said format reverse-conversion program are received in

said receiving step (col. 10 lines 16-50, where the intermediaries receive/retrieve the

format reverse-conversion program; as seen in claim 3 above, a digital signature may

encompass any part of a message, as it would increase security, as shown in

Menezes).

Claims 21-24, as best understood by the Examiner, are rejected using the same

basis of arguments used to reject claims 3-6 above.

Claims 39-42, as best understood by the Examiner, are rejected using the same

basis of arguments used to reject claims 3-6 above.

Conclusion

9.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jason K. Gee whose telephone number is (571) 272-

6431. The examiner can normally be reached on M-F, 7:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kambiz Zand can be reached on (571) 272-3811. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

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09/11/2007

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